

### **REMARKS**

This Amendment responds to the Office Action mailed October 13, 2005 in the above-identified application. Based on the foregoing amendments and the following comments, reconsideration and allowance of the application are respectfully requested.

Claims 1-18 are pending in the application. Claims 1, 8 and 15 have been amended solely for clarification and not to distinguish over the prior art of record. Accordingly, claims 1-18 are pending, with claims 1, 5, 8, 12 and 15 being independent claims. No new matter has been added.

The specification has been amended on page 10, paragraph [0036] to correct erroneous reference numerals. The error is apparent by comparison with Fig. 2.

The Examiner has objected to drawings because Figs. 1-3 should be designated by a legend such as "prior art." Enclosed herewith are replacement sheets in which Figs. 1-3 are labeled as prior art. Accordingly, withdrawal of the objection to the drawings is respectfully requested.

In a review of the application following receipt of the current Office Action, drawing errors were noted. In particular, incorrect reference numerals were noted in Fig. 6. A replacement copy of Fig. 6 is enclosed. In amended Fig. 6, all "700" reference numerals have been changed to corresponding "600" reference numerals. The correct reference numerals are apparent from a reading of the specification.

In addition, it appears that Fig. 7 was not filed with the application. Enclosed herewith is a proposed Fig. 7 for addition to the application. Fig. 7 does not constitute new matter, because the subject matter of Fig. 7 is described in the application as filed at least at page 17, paragraphs [0051] and [0052]. Accordingly, entry of Fig. 7 is respectfully requested.

The Examiner has rejected claims 1-18 under 35 U.S.C. §103(a) as unpatentable over Bommaiah et al. (AmRoute Internet Draft 1998), and further in view of English (US 6,757,553),

Trompower (US 5,924,040) and Proctor Jr. (US 2003/0048770). The rejection is respectfully traversed.

Bommaiah describes a process for creating a mesh wherein messages are broadcast by a core node to discover other members of the group. A member of a different mesh may respond, and a connection is established between the core node and the responding node of the other mesh (§4.3.1). Bommaiah contains no disclosure whatever of antenna spatial selectivity patterns.

English discloses a method and apparatus for wireless communications wherein a base station transmits and receives wireless signals through multiple directional antennas mounted on a rotating antenna assembly. Signal beams from each directional antenna sweep in one angular direction through multiple sector coverage areas (Abstract).

Trompower discloses a wireless communication system wherein an approximate location of a mobile communication unit within the network is determined. Trompower describes a prestored map of locations of a plurality of base stations within the network and the respective network cell coverage areas for those base stations. Each of the plurality of base stations is able to change the size and/or shape of its respective cell by varying transmitter and receiver power levels and/or antennas. By incrementally changing its respective cell coverage area, the base station can narrow down the region in which a mobile communication unit is located (col. 2, line 65 to col. 3, line 13).

Proctor discloses a method of detection of signals using an adaptive antenna in a peer-to-peer network. If a received signal has not been previously detected, then the controller scans the directional antenna to determine a direction setting that provides a best received signal metric. This can proceed as an angular search of possible antenna angle settings, and testing a received signal metric for each candidate direction. The best directional setting for the antenna is saved for future use in receiving the identified signal. (paragraph [0012]).

Amended claim 1 is directed to a method for adding nodes to a wireless mesh network, comprising adjusting an antenna sensitivity pattern of one or nodes in the wireless mesh network to exhibit spatial selectivity, transmitting a query, and, if a response to the query is received from a responding wireless node within a predetermined time period, adding the responding wireless node to the mesh network.

The Examiner asserts that claim 1 is unpatentable over Bommaiah in view of English, Trompower and Proctor. It is respectfully submitted that the Examiner has provided no basis whatever for the combination of Bommaiah with English, Trompower and Proctor. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference teachings. The teaching or suggestion to make the claimed combination must be found in the prior art, not in Applicants' disclosure (M.P.E.P. §2143). As discussed above, Bommaiah contains no discussion whatever of antennas or of antennas having directional patterns. Further, English, Trompower, and Proctor contain no disclosure or suggestion of adding nodes to a wireless network. English describes a base station having multiple directional antennas mounted on a rotating antenna assembly. Trompower discloses a technique for determining the location of a mobile device within a network. Proctor describes a technique for determining a best directional setting for communicating with a mobile device. Since Bommaiah contains no discussion of antennas and English, Trompower and Proctor contain no discussion of adding nodes to a wireless network, the skilled person reviewing Bommaiah would have no reason to refer to the teachings of English, Trompower and Proctor. For these reasons, the combination of references is improper and should be withdrawn.

Amended claim 1 is clearly patentable over the cited references and withdrawal of the rejection is respectfully requested. Claims 2-4 depend from claim 1 and are patentable over the cited references for at least the same reasons as claim 1.

Independent claim 8 is directed to a wireless device and contains device limitations that parallel the method limitations of claim 1. Independent claim 15 is directed to a computer

readable medium having computer-executable instructions to perform acts for adding nodes to a wireless mesh network, wherein the acts parallel the method of limitations of claim 1. Claims 8 and 15 are patentable over Bommaiah in view of English, Trompower and Proctor for at least the reasons discussed above in connection with claim 1.

Claims 9-11 depend from claim 8, and claims 16-18 depend from claim 15. Claims 9-11 and 16-18 are patentable over the cited references for at least the same reasons as claims 1, 8 and 15.

Claim 5 is directed to a method for supporting data connections between three or more wireless devices, comprising adjusting the sensitivity pattern of an antenna on a first wireless device, communicating with a second wireless device, and further adjusting the sensitivity pattern of the antenna of the first wireless device to enable communication with a third or additional wireless devices.

The Examiner asserts that Bommaiah teaches adjusting the sensitivity pattern of an antenna on a first wireless device. Applicants must respectfully disagree. As discussed above, Bommaiah contains no discussion whatever of antenna sensitivity patterns and therefore cannot disclose or suggest adjusting the sensitivity pattern of an antenna. In addition, Bommaiah contains no disclosure or suggestion of adjusting sensitivity pattern of the antenna to enable communication with a third or additional wireless devices, as claimed.

As discussed above, the combination of Bommaiah with English, Trompower and Procter is improper and should be withdrawn. A skilled person reviewing these references would find no basis for making the combination asserted by the Examiner.

Accordingly, claim 5 is clearly and patentably distinguished over Bommaiah in view of English, Trompower, and Proctor. Claims 6 and 7 depend from claim 5 and are patentable over the cited references for at least the same reasons as claims 1, 5, 8 and 15.

Claim 12 is directed to a computer readable medium having computer executable instructions to perform acts for supporting data connections between three or more wireless devices, wherein the acts parallel the method of limitations of claim 5. Claim 12 is clearly patentable over Bommaiah in view English, Trompower and Proctor for at least the same reasons as claims 1, 5, 8 and 15.

Claims 13 and 14 depend from claim 12 and are patentable over the cited references for at least the same reasons as claim 12.

Based upon the above discussion, claims 1-18 are in condition for allowance.

### CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If there is a additional fee occasioned by this response, please charge any deficiency to Deposit Account No. 23/2825

Dated: January 25, 2006

Respectfully submitted,

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